Trends in Maine's Environmental Infrastructure

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Maine has a long history of investing in our environmental infrastructure and the clean up of environmental problems, be they water quality problems or abandoned hazardous waste sites. Maine's history of a strong commitment to funding our environmental infrastructure is, to put it simply, now at risk with the radical federal reduction of Clean Water State Revolving Loan match funds and other funds used for our infrastructure[1]. The state and our towns face enormous difficulty funding Maine's basic environmental needs.

The federally supported Clean Water State Revolving Loan Fund directly affects the homes of more than 600,000 Maine people and many more Mainers where they work, get services or recreate. The Fund has supported 59 utility districts and the 151 waste water treatment plants owned by municipalities and districts. It is also supporting 38 communities working to separate storm water drains from sewer lines.

The Clean Water Fund provides low interest loans for the construction and upgrade of wastewater treatment systems. These sewer treatment systems protect Maine's existing water quality designations for our rivers, streams, brooks, lakes and marine waters, and they support a growing Maine economy.

Each state dollar dedicated to the Clean Water Loan Fund is matched with five federal dollars under the existing federal program.

Following successive years of federal cuts, current Federal proposals are to cut another $200 million nationwide from last year's appropriation amount for the Revolving Fund program, marking the fourth straight year of Federal reduction. The $688 million now being proposed is a decrease of more than $600 million from the 2003 federal funding level of just below $1.3 billion.

Maine's share of this appropriation for our wastewater construction would drop from recent levels of $10 million to $12 million annually to about $5.3 million annually under the current federal funding proposal. Federal funding of maturing funds will entirely end in 2011 if George W. Bush's proposal is successful.

As we see these looming cuts, we recognize Maine citizens' longstanding commitment to environmental infrastructure. Since 1983, the State of Maine has spent over $17.6 million annually (measured in today's dollars[2]) for the construction of waste water treatment plants and sewerage systems, the clean up of hazardous waste sites, the removal of tire piles, and the closure and clean up of landfills around the State.

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[1] I am referring to environmental infrastructure as waste water systems, solid waste management systems, and the management of contaminated hazardous waste sites.
[2] Figures are shown in 2006 dollar value.

With that in mind, it's important to look at what has been accomplished and what lies ahead.

What has been accomplished?

We have used state funds (with no available federal match) to remove large tire piles and close municipal landfills. The core work of both efforts is completed, albeit with some remaining liabilities which the State may address or not – a decision will we need to face in light of significant funding issues.

Tire piles

From 1995 to 2003, an average of $1.5 million annually was spent to remove the largest tire piles. The threat to air and water quality from potential fires in large tire piles is gone, as large tire piles no longer pose the risk of a large inferno with toxic air and water releases. All large Class A and the majority of medium sized Class B piles are cleaned up.

Only small tire piles remain. State statutes and regulations along with state and local monitoring will prevent tires from becoming a major environmental risk again.

Landfills

After spending more than $6 million annually between 1987 and 2001, we no longer have municipal and unregulated landfills across the state.

Since 2000, approximately $2,260,000 in total -- $452,000 annually -- has been spent on remedial costs associated with closed municipal land fills and private abandoned landfills. Only $100,000 in bond funds remains for any ongoing work.

The question is whether there will be State funding to address the inevitability of future landfill failures. Subject to the availability of funds, the State is obligated to pay for 90% of municipal costs for landfill remediation. If the towns fund the full remediation costs on their own, the State is required by statute to pay them back with interest when funds are available.

Yet to be done on landfill closure, the need will likely exceed $3,700.000 for municipal landfills over the next 4 years. Once contaminated leachate is detected moving from the landfill -- putting the need for action on hold "pending funding availability" only delays the day of reckoning.

An additional $11 million is projected for the closure and remediation in the next four years for four private abandoned industrial and commercial landfills, with most of the funds needed for the two abandoned landfills in Augusta and Vassalboro. Then, being optimistic, we would hope to level off at about $400,000 annually in emergency repair and remediation efforts for abandoned private landfills.

What needs to get done?

Hazardous Waste Sites

The state has expended nearly $35 million on the clean up of abandoned hazardous waste sites since 1985: approximately $1.75 million per year (2006 dollars).

Unlike removing large tire piles or closing landfills, knowing where the next serious hazardous waste site will be discovered is far less predictable. We do know that there are four industrial sites with old settling lagoons that are a definite hazard. However, there is no Federal or State money to deal with them today. Each will fail to some degree in the coming years without state action.

The inglorious part of our industrial history is that we do know that we have abandoned industrial sites -- sites of bankrupt enterprises -- that limit reuse of the site and pose a threat to human and environmental health through groundwater and soil contamination.

Failure to act quickly leads to greater damage, greater risks, and greater clean up costs.

Right now, DEP has less than $200,000 available in bond funds to address ongoing monitoring commitments and virtually no funds for response and clean up needs for newly discovered hazardous waste sites. The funds available for an uncontrolled hazardous waste site where there is no financially able owner or responsible party are declining precipitously. Current balances from recoveries and settlements do not provide for minimal on-going monitoring, let alone providing for response and clean up when an uncontrolled site is discovered to pose an eminent environmental and human health hazard.

If there are owners or other responsible parties who are liable for response and clean up costs at these sites, the DEP and Attorney General will pursue them. You will not be surprised to hear that it often requires time and may require legal action to recover costs if there is a responsible party, and often a responsible party may not have the ability to pay.

DEP currently has forty-one sites with investigation needed or underway. Thirteen other sites are involved in or awaiting remediation. Forty sites require on-going monitoring to make sure contamination is resolved or contained. Two major sites require an on-going state match to get federal funds for site monitoring.

Right now, in practical terms, the DEP is limited to putting up yellow danger tape and chain link fence if a new hazardous substance site is discovered without a responsible party. That is obviously inadequate to address a substantial risk to human and environmental health.

We are talking about toxins and chemical poisons that can drive people away from an area, diminish real estate valuations, and also migrate into our waters and groundwater.

The known need is $2 million to $4 million for initial site response and stabilization and for needed remediation for each of the next five years. And that does not includes DEP staff

costs for responding to an initial contamination discovery, or designing and contracting for clean ups, or for long term monitoring of the sites.

In 2006 dollars[3], 58% of the approximate $405 million in state bond money spent on environmental infrastructure since 1983 has been for sewage infrastructure.

The challenge is simple: there are hardly any more funds being provided today.

Maine's sewage infrastructure wears out even as the need for improvements increases. A well maintained waste water treatment plant has a working life of 20 to 25 years.

Combined sewer systems and storm water systems need to be separated or the sewer system fails in periods of heavy rains. When this happens, raw sewage flows into our streams and rivers.

The funding for sewage system investments is drying up at both the federal and state levels.

The formula is still there for the deeply subsidized loan pool for $5 in federal money for each $1 in State money contributed. But neither federal nor state government is providing the money to meet the level of need.

Similarly, direct construction grants for municipalities have dried up at the State level and are only available as "earmarks" at the Federal level.

In today's dollars, $294 million is needed in Maine for the next five years for 79 municipal waste water treatment plant upgrades, sewer line extensions, and replacing combined sewer and storm water systems. Another $95 million we know about today will be needed in the following five years.

With a 5 to 1 federal to state match formula, that would mean a state obligation of some $65 million – if the federal money is there. Making this challenge greater, the state obligation would be much greater than that because a large number of the municipalities needing assistance need direct grants in addition to the subsidized loans. At $20 million annually, these construction grants would just keep pace with the level needed to avoid system failures state-wide.

An additional $5 million annually is needed for small community grants to municipalities to fix failed residential septic systems of impoverished homeowners that are contaminating surface waters or area wells. This money is also needed for the replacement of licensed overboard discharges that have alternative septic systems directly discharging into surface waters.

So what happens if there is not adequate funding to manage Maine's sewage?

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[3] The $1 provided today has only about twelve cents of the buying power of the $1 provided in the 1960's when we first committed to cleaning up our rivers and streams.

The communities with waste water treatment plants where there has been no replacement of worn machinery are reaching the time for major reconstruction. They will be left with failing systems that cannot serve new businesses or residents, and ultimately cannot serve existing users.

The end result is not pretty. Without some improvement, the surface and groundwater quality that Maine has done so well to improve and protect for the past 50 years will begin a downward slide.

In more affluent and growing communities, the challenge is to meet the new demand as well as to deal with the old issues of sewage system upgrades and eliminating combined sewer overflows, and new issues of excessive nutrients and toxics.

Industrial, commercial and residential development will take place where waste water systems are already in place that meet standards. Investors don't have the time to wait for improvements in basic municipal infrastructure. The National Semiconductor expansion is South Portland is an example of an investment that happened because adequate wastewater capacity existed.

Aroostook County's regional project involving the Loring Development Authority, Limestone, and Caribou is an example of the environmental and economic forces driving upgrades in wastewater treatment.

The LDA/Limestone/Caribou project will:

1. replace aging and obsolete equipment at Loring's wastewater treatment plant
2. wastewater from Limestone could then be handled by the capacity at Loring's plant
3. eliminate an outfall to the Little Madawaska River and extend the line for an outfall into the Aroostook River, which can handle the flow.
4. provide a possible future tie in to Caribou's existing wastewater treatment facilities

The joint effort would help to assure lower costs to effected taxpayers and existing businesses, improve water quality in local streams and rivers, and assure that the region has the wastewater treatment capacity to be attractive for expansion of existing businesses or the location of new industry.

Only a few years ago the possibility of a potato processing plant (Lamb-Weston, a division of ConAgra) at Loring fell through because of market conditions, but also because of the need for the discharge line to the Aroostook River. If we can get the infrastructure in place, it can influence a company's expansion or location decision.

We cannot exaggerate the consequences of not investing in environmental infrastructure.

Some of the toughest days for me are when community leaders are in my office asking for help to deal with a toxic waste site or an inadequate, failing waste water treatment plant. Generally, the help they need is beyond what the community alone can provide.

I can also tell you something really good about the investment in environmental infrastructure.

The analysis of the University of Maine's Margaret Chase Smith Center shows us that a $17.5 million environmental bond package, with matching funds and multiplier effect, would have generated total economic activity of $81.5 million including 841 jobs in Maine. That is a job for every $20,800 of state bond funds expended.

This economic benefit does not include results from the capital investments: the jobs retained or the growth that results from the re-use of a former toxic waste site or the expanded business that an adequate waste water system allows to happen.

We should clean up our waters and hazardous waste sites because it is the right thing to do. In purely economic terms, the payback is there -- giving us two good reasons to do the right thing.